SAILFISH

a sailfish primer

by Riley Love

It was the closure of the Isthmus of Panama during the Pliocene era 3 million years ago which sealed the deal. It separated the great oceans of our hemisphere and the populations of sailfish of the world. They exist in waters varying from 70- to 83-degrees Fahrenheit generally, which blocks their egress near the poles. In United States' seas, they can be encountered during summer months occasionally up to Oregon or New England. Although recording tags have documented dives down to 800-foot depths, sailfish spend at least 90 percent of their time above the thermocline in 10 to 60 feet.

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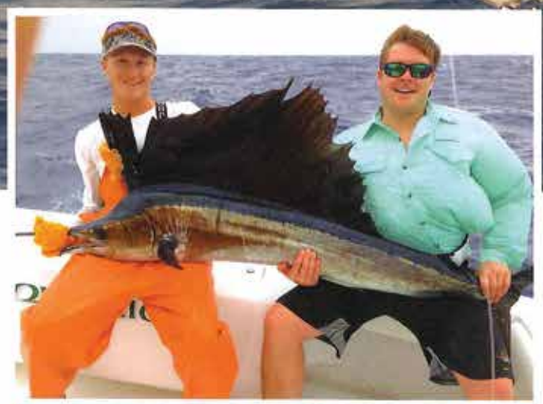
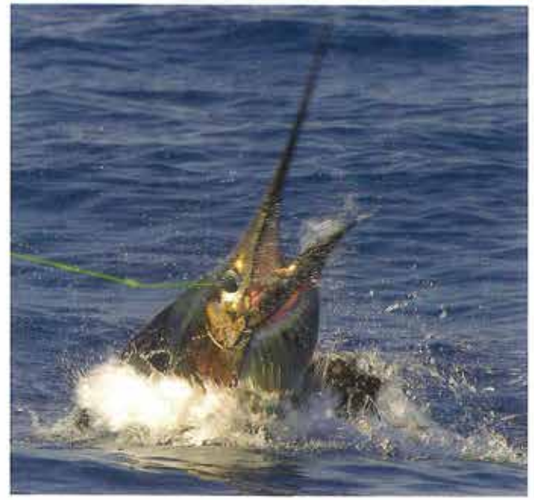
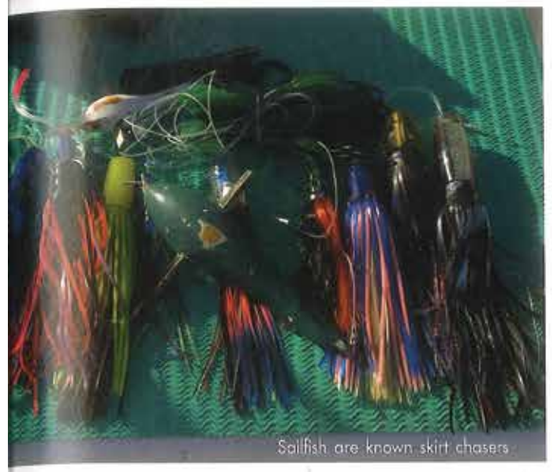




OCEANOGRAPHY AND GENETICS

The dawn of the nineteenth century was an exciting era. Science and geographic exploration were hand in hand discovering the nature of our world and for the first time organizing those discoveries of flora and fauna with the binomial nomenclature system of *Linnaeus* (the Latin derivation of Carl von Linne). Although familiar to the people of Oceana, the western Atlantic sailfish had first been observed by Europeans leaping off the coast of Brazil and was subsequently recorded in Piso's *Historia Naturalis Brazilia* in 1648. However, it was in 1786 that Sir James Banks deposited a 7-foot 6-inch specimen from the Indian Ocean in the British Museum. *Scomber gladius* was the first name used to describe the new species. Although various naturalistic writers attributed a multitude of different names to this novel animal, it was eventually illustrated in the wonderful assemblage of the *Naturalist's Miscellany*, No. 28 by Shaw and Nodder in 1792. Thus it was christened, *Istiophorus platypterus*, its final scientific name. The first sailfish captured in America was off Rhode Island in 1872. The first Florida sail was caught in Key West in 1873. The fish was transported to New York where a mold was made of it and was regarded as a great curiosity.

Debate over whether sailfish from the different oceans constitute different species still dwells today in popular literature, but not among geneticists. It is currently accepted that despite numerous differences in the genetic material of the sailfish populations of the Atlantic, Pacific and the Indian Oceans, that these variances are too small to describe the fishes as separate species. Thus they are monotypic and the single scientific name applies to all sailfish of the world. The International Game Fish Association (IGFA), record keeper



Sailfish are known skirt chasers

for the entirety of game fish, attributes honors separately for Indio-Pacific and Atlantic sailfish but uses the same scientific name for both records. Therefore, other names such as *I. albicans*, suggested by the French zoologist Latreille in 1804, *I. orientalis*, *I. gladius*, *I. japonicas*, and *I. indicus* should be disregarded as invalid.

During the Pleistocene glacial era, approximately 1.8 million years ago, the waters cooled dramatically around the southern tip of Africa. Subsequent rare and singular events of warmer current flow created a one-way filter of migration for sailfish from the Indian Ocean around Cape Horn into the genetic stock of the Atlantic. Reviewing genetic mapping of the species from the oceans of the world, that specific gene pool shows greater variation then the world's other sailfish stocks as a result.

The Atlantic sails are divided into distinct eastern and western populations near Africa and the West Indies. Under Article 64 of the United Nations Convention of the Law of the Sea, sailfish along with marlin, swordfish, tuna, pomfret, saury, some sharks, dolphins, and cetaceans are regarded as highly migratory species. Yet the migratory patterns of sails, compared to other billfish, is quite limited. It seems clear that the East and West Atlantic populations never mix. The U.N. ought to give the Eastern sailfish a ticket for loitering. Few go as far as the Mediterranean.

In the West, Florida's state fish has been studied by The Billfish Foundation in the largest private tagging program in the world. Hundreds of thousands of tags have been deployed showing north and south migration mostly produced by water temperature, ocean currents, and weather. Most fish were discovered within 50 miles of where they were initially tagged. Longer treks by individuals of over 250 miles were more rarely recorded, such as from Isla Mujeres to South Florida and into the Gulf of Mexico. The Yucatan current flows northward as a conduit for migration but is relatively weak and its influence is largely overcome by weather from the north as the season progresses. In spring, gravid females move in and out of the Gulfstream, usually accompanied by one or more males, spawning in depths of 100 fathoms or more. They return to the Yucatan region and islands of the Caribbean, but never cross the Atlantic or migrate across the equator.